

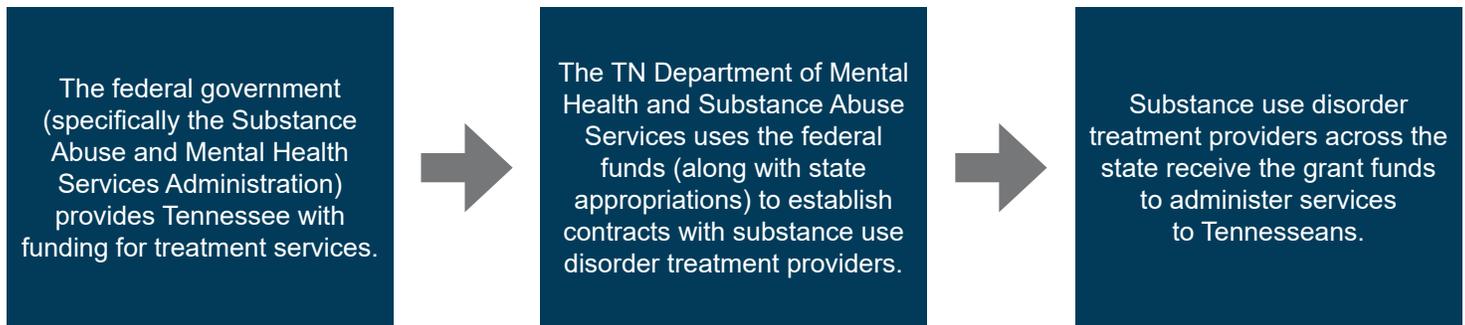
Introduction

This brief, prepared in response to a legislative request, surveys the existing research landscape on outcomes for substance use disorder treatment programs in Tennessee. While the Office of Research and Education Accountability (OREA) has not conducted an extensive evaluation of substance use disorder treatment program outcomes to date, this brief serves as a literature review to explore state, federal, and private studies/publications on this topic. This brief also provides relevant information on Tennessee’s substance use disorder treatment services, infrastructure, and funding. The brief highlights key substance use disorder treatment programs supported by TDMHSAS and TennCare. There are other prevention, treatment, and recovery support programs operating in Tennessee that are not addressed in this legislative brief.

Tennessee’s publicly funded substance use disorder treatment system

The Department of Mental Health and Substance Abuse Services

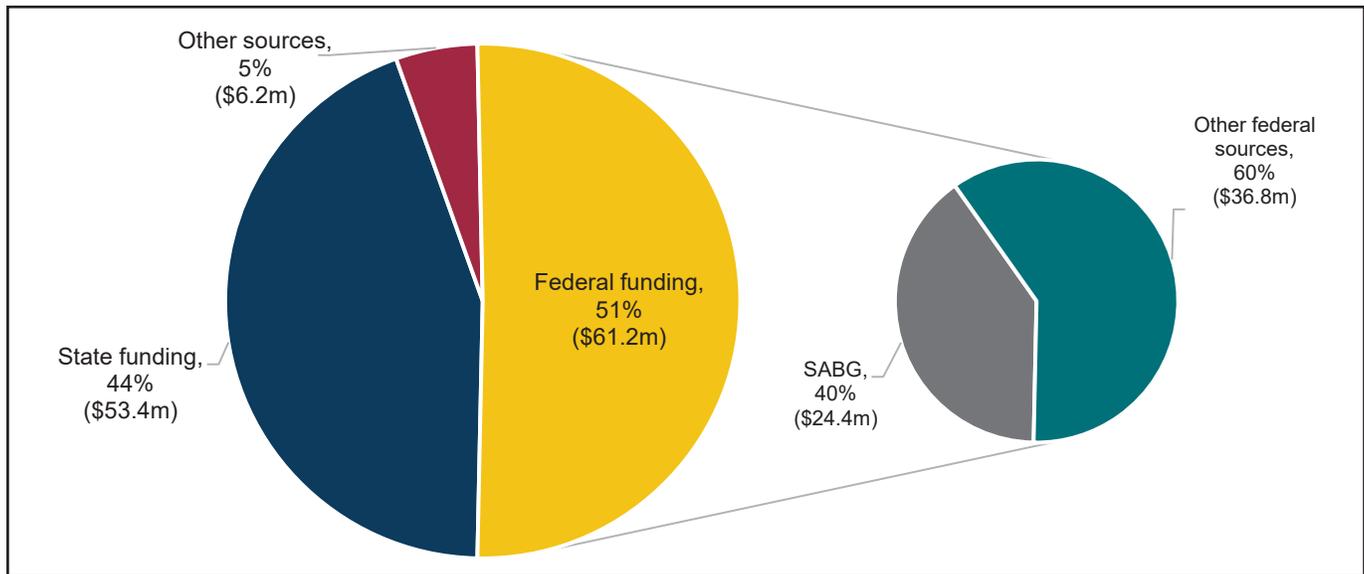
In Tennessee, many substance use disorder treatment services that are funded through public dollars are overseen by the Department of Mental Health and Substance Abuse Services (TDMHSAS). While these treatment services are publicly funded, they are administered primarily by private organizations. TDMHSAS receives federal funding through both discretionary funds and formula-based grants, including the Substance Abuse Prevention and Treatment Block Grant (SABG). TDMHSAS then uses these federal funds (including discretionary grants sought and obtained by TDMHSAS), along with state appropriations, to establish contracts with providers of alcohol and drug treatment services.



For fiscal year 2022-23, TDMHSAS’s budget for Community Substance Abuse Services totaled \$120.7 million. Of these funds, 51 percent (\$61.2 million) will come from federal funds, 44 percent (\$53.4 million) will come directly from state appropriations, and the remainder (\$6.2 million) will come from other sources. About 40 percent of federal funds came from the SABG, while the other 60 percent came from discretionary funds or other grants.

TDMHSAS’s total budget for Community Substance Abuse Services decreased from \$161.2 million in fiscal year 2021 to \$120.7 million in 2022. However, this may be partly due to supplemental COVID-19 funds that were available in 2021.

Exhibit 1: Community Substance Abuse Services funding in Tennessee | FY 2022-23



Source: Substance Abuse and Mental Health Services Administration, 2022; State of Tennessee Fiscal Year 2022-2023 Budget.

The Division of TennCare

Not all publicly funded treatment services are overseen by TDMHSAS. Some services are funded through the Division of TennCare, the state's Medicaid program. While TennCare works closely with TDMHSAS and the governor's office to develop the state's opioid strategy, its substance use disorder treatment services are funded differently.

The Medicaid program is jointly funded by the federal government and the state. TennCare contracts with three managed care contractors across the state to provide care for its beneficiaries. These organizations oversee access to substance use disorder treatment services for Medicaid recipients across the state under the direction of TennCare.

TennCare covers a variety of treatment options for individuals with substance use disorder including detoxification and medication-assisted treatment at inpatient, residential, and outpatient levels for substance use disorder and opioid use disorder. All forms of FDA approved medication for opioid use disorder are covered under TennCare's benefits.

Substance Abuse Prevention and Treatment Block Grant

To receive federal funds from the SABG, TDMHSAS must submit an annual application along with a report. As part of this report, TDMHSAS is required to list the block grant's subrecipients from the previous year (i.e., the organizations that provided clients with substance use disorder treatment), along with a detailed breakdown of the activities and services purchased with block grant funds. The report must also highlight progress made toward the state's priorities and goals, as well as the number of individuals served with block grant funds. The SABG requires states to target treatment services to two groups: women who are pregnant or have dependent children, and intravenous drug users.

The annual report must also contain key performance measures, as shown in Exhibit 2. These measures provide more information about client outcomes before and after treatment, including housing, education, employment, substance use, and criminal justice involvement.¹ While neither TDMHSAS nor the federal substance use disorder agency have published an evaluation of how these measures differ by treatment mode, the data necessary to complete such an evaluation is publicly available online.

Exhibit 2: Performance measures required to receive SABG funds

Employment/education status	The number and percentage of clients who are either students or employed (full time or part time in the past 30 days) at admission and discharge
Stability of housing	The number and percentage of clients living in a stable living situation (in the past 30 days) at admission and discharge
Criminal justice involvement	The number and percentage of clients without arrests (any charge in the past 30 days) at admission and discharge
Abstinence – alcohol use	The number and percentage of clients with no alcohol use (all clients, regardless of primary problem, in the past 30 days) at admission and discharge
Abstinence – other drug use	The number and percentage of clients with no drug use (all clients, regardless of primary problem, in the past 30 days) at admission and discharge
Social support of recovery	The number and percentage of clients participating in self-help groups (e.g., AA, NA, etc.) in the past 30 days at admission and discharge

Source: Substance Abuse and Mental Health Services Administration, 2022.

Most treatment providers are private nonprofits, receive public funding, and provide outpatient services

According to the National Survey of Substance Abuse Treatment Services, in 2020, the overall Tennessee treatment system included 311 facilities.² Sixty-five percent of these facilities (202) received federal, state, or local government funds or grants for substance use treatment programs. TDMHSAS currently contracts with 56 providers, some with multiple facilities, that receive federal SABG and/or state funds.³ It is important to note that the survey reflects results from 311 treatment facilities in Tennessee, not just those facilities that contract with TDMHSAS.

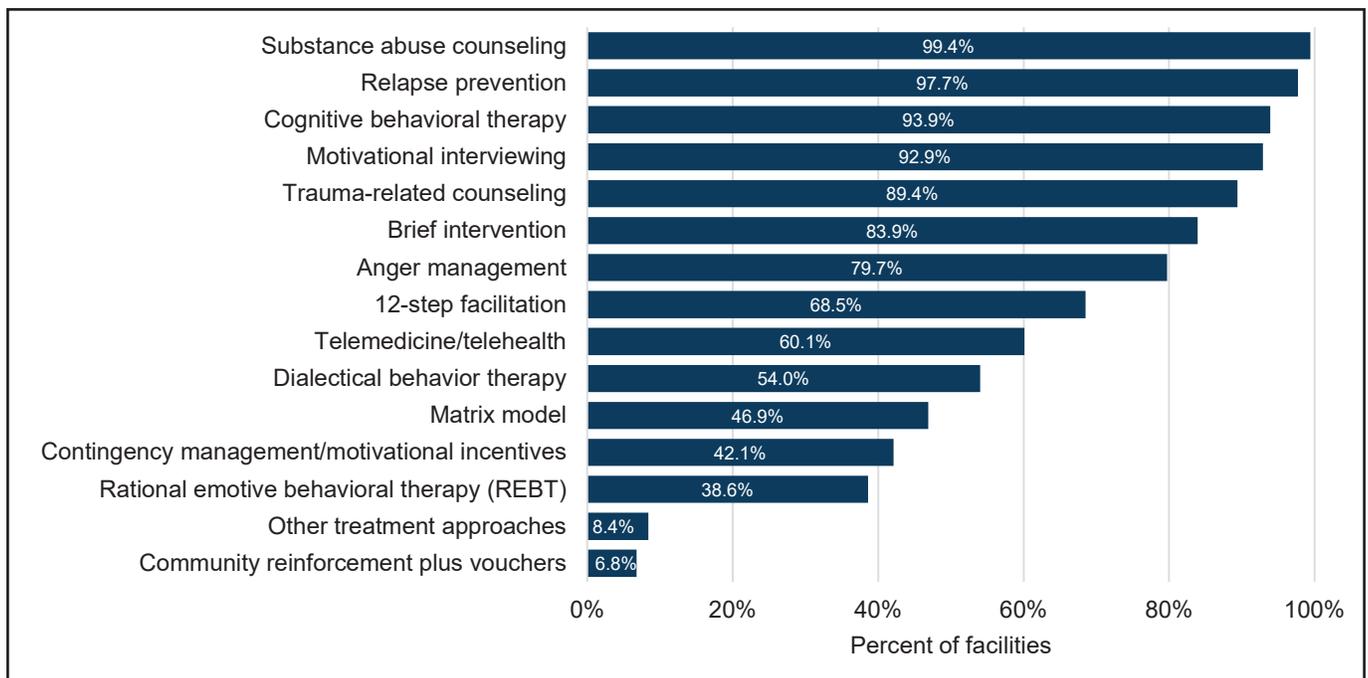
Almost two-thirds (63 percent) of treatment facilities in Tennessee are private nonprofit organizations, while just over a third (35 percent) were private for-profit agencies. Four percent of facilities provide free treatment for all clients, while 46 percent of facilities charge minimal or no payments for clients who may have difficulty paying.

Treatment services are categorized as either residential, in-hospital, or outpatient services. Most facilities in Tennessee (91 percent) provide outpatient services; in other words, individuals visit the facility for treatment but are not admitted to stay overnight. About a quarter of the state’s treatment facilities offer residential services at a facility other than a hospital (e.g., a recovery community or a rehabilitation center), while 5 percent provide inpatient services at a hospital.

Treatment strategies can include therapeutic services, medication, or both

As shown in Exhibit 3, the most frequently offered therapeutic/clinical treatment services among treatment facilities in Tennessee include substance use disorder counseling, relapse prevention, cognitive behavioral therapy, and motivational interviewing, with more than 90 percent of facilities offering these types of services. While these services are the most frequently offered by treatment facilities, the survey did not provide data on which services have the highest rates of uptake among individuals. Note that this visualization includes clinical/therapeutic services only; treatment through medication was excluded from this particular survey question and is addressed separately.

Exhibit 3: Types of clinical/therapeutic services offered by substance use disorder treatment facilities in Tennessee



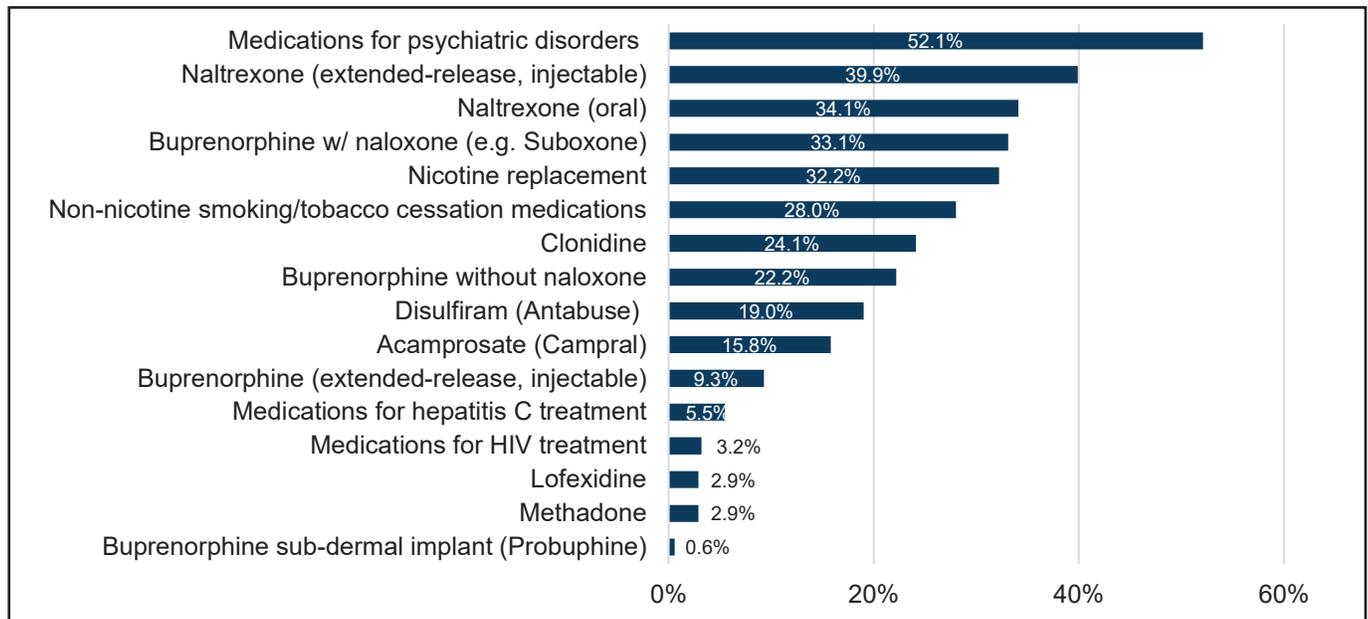
Source: Substance Abuse and Mental Health Services Administration, 2020.

The existing literature landscape makes it difficult to compare the efficacy of the above methods. Studies in this field often compare the impacts of one strategy to another treatment method, or no treatment at all, rather than a range of different treatment methods. Substance use disorder counseling and relapse prevention, the two most frequently offered methods of substance use disorder treatment, have generally been shown to be effective, especially when combined with medication treatment.⁴ Relapse prevention is a behavioral approach that involves patients and their clinicians identifying and mitigating situations that could place the person at greater risk for relapse. Evidence suggests that motivational interviewing is also effective when compared to the absence of treatment; this strategy is a therapeutic technique intended to strengthen one's motivation and commitment to sobriety.⁵

While nearly all facilities offer screening and counseling, many also offer treatment through medication (a strategy known as pharmacotherapy). According to surveys, about 73 percent of facilities in Tennessee offer at least some form of pharmacotherapy. Exhibit 4 shows the different types of medications offered by Tennessee’s substance use disorder treatment providers.

According to a review published by the American Psychiatric Association, buprenorphine (one of the more frequently offered medications) has been linked to higher rates of treatment retention and reduction in illicit opioid use.⁶ Methadone (offered by about 3 percent of substance use disorder facilities in Tennessee) is also associated with positive outcomes, but it has been linked to adverse medical events, such as respiratory depression and cardiac arrhythmia. As of 2022, Tennessee had 19 licensed for-profit methadone clinics.

Exhibit 4: Types of medications offered by substance use disorder treatment facilities in Tennessee



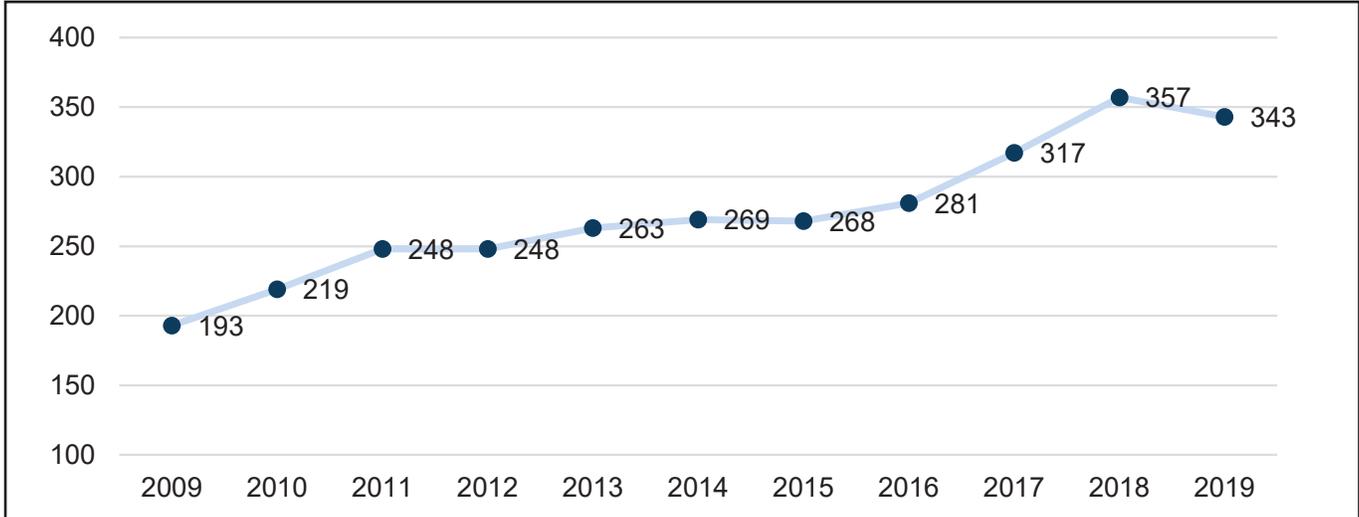
Source: Substance Abuse and Mental Health Services Administration, 2020.

In Tennessee, opioid treatment programs, or medication-assisted treatments, are overseen by the State Opioid Treatment Authority. This individual is selected from within TDMHSAS by the Commissioner of Mental Health and Substance Abuse Services.⁷ He or she is responsible for providing administrative, medical, and pharmaceutical oversight to certified opioid treatment programs to ensure that opioid addiction treatment is provided at an optimal level.⁸

Alcohol, methamphetamine/amphetamine, and non-heroin opiates were the most common reasons for seeking treatment

The number of Tennesseans who received substance use disorder treatment has risen steadily since 2009, from just over 10,000 in 2009 to 20,000 in 2019 (this includes outpatient, residential, and in-hospital treatment services). As shown in Exhibit 5, the number of treatment admissions per 100,000 population has also grown from 193 to 343. In other words, the growing number of Tennesseans seeking substance use disorder treatment cannot be exclusively attributed to population growth.

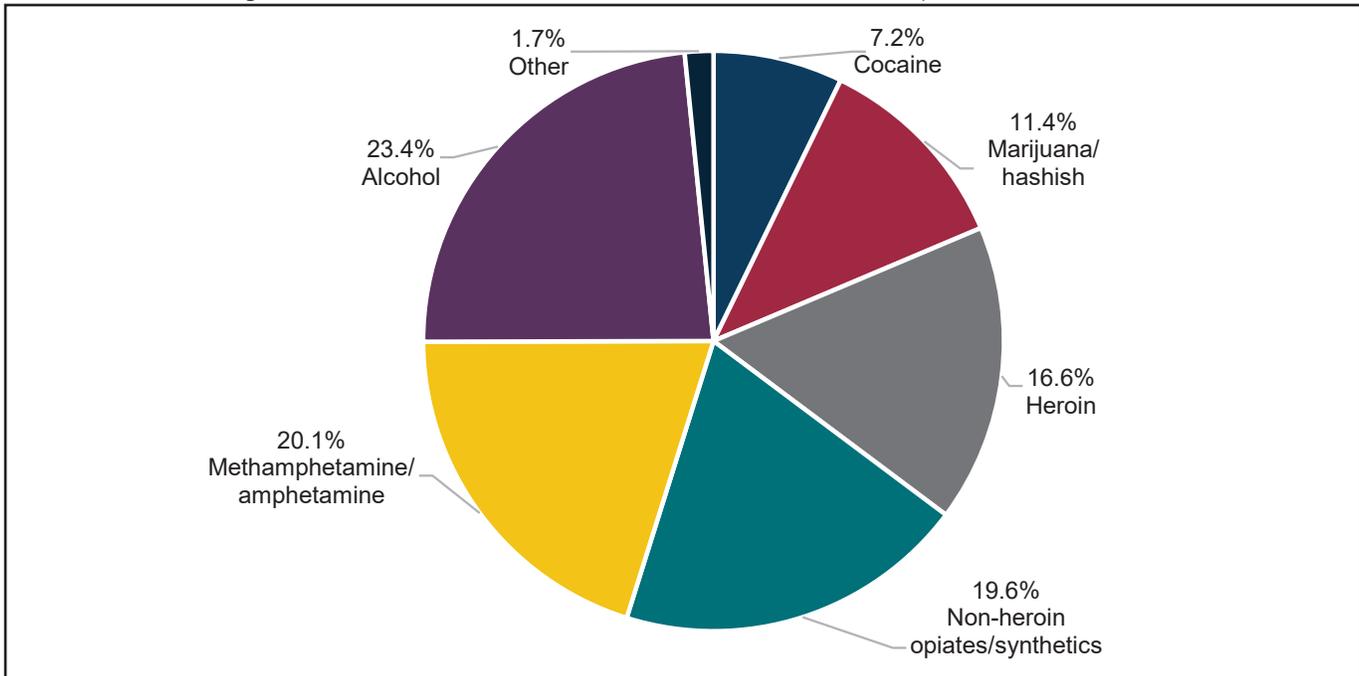
Exhibit 5: Substance use disorder treatment admissions in Tennessee per 100,000 population | 2009-2019



Source: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set 2019.

In 2019, the three biggest categories of substances that led individuals in Tennessee to seek treatment were alcohol, methamphetamine/amphetamine, and non-heroin opiates/synthetics. Together, these three categories made up 63 percent of substance use disorder admissions in 2019.

Exhibit 6: Primary reason for substance use disorder treatment, 2019 admissions



Source: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set 2019.

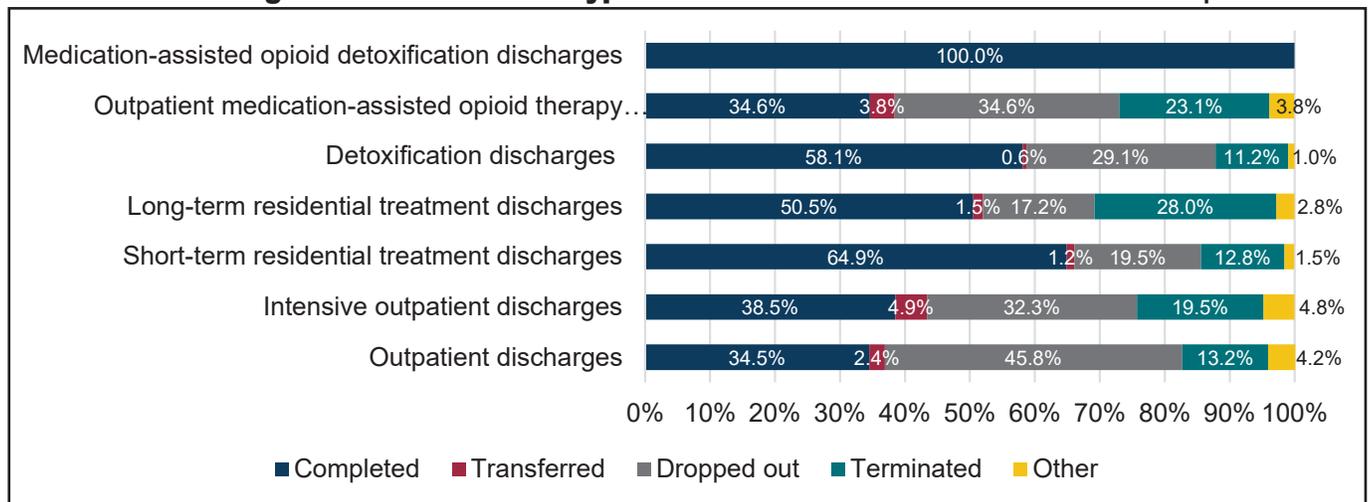
Treatment completion rates can help determine effectiveness

The federal government publishes an annual report titled *Admissions to and Discharges from Publicly Funded Substance Use Treatment*. The report shows completion rates for different types of substance use disorder services. While this information is useful, the report has several limitations. Perhaps most importantly, the discharge data in this report can show only whether an individual completed their treatment course. Other indicators, such as whether the individual relapsed at a later point or successfully recovered, were not available.

Based on the data from the most recent report, medication-assisted opioid detoxification services have the highest rate of completion. General detoxification services also had a high completion rate (58.1 percent) relative to other treatment methods. However, the high completion rate is likely due (at least in part) to the fact that detoxification services can be completed by an individual relatively quickly. According to 2019 data from the federal Substance Abuse and Mental Health Services Administration, detoxification typically lasts less than a week, while some outpatient and residential therapy programs can take several months to complete.

Outpatient treatment services were shown to be less effective than residential services, as they were associated with higher dropout rates and lower completion rates. About 46 percent of outpatient treatment recipients dropped out, which is 28.6 percentage points higher than the dropout rate for long-term residential services and 26.3 percentage points higher than the dropout rate for short-term residential services. While outpatient medication-assisted therapy had lower dropout rates than general outpatient services, termination rates (meaning the client was terminated from the program by the facility) were higher. The survey did not address the underlying reasons why clients were prematurely terminated from their treatment programs, but one study suggests that clients who are employed and those who are legally required to complete a program have a lower likelihood of premature termination.⁹

Exhibit 7: Discharge rates for different types of substance use disorder treatment | 2019



Source: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set 2019.

Current Tennessee Resources

Tennessee REDLINE

The Tennessee REDLINE is a phone line that allows anyone to request a confidential referral for substance use disorder treatment. The service is provided by the Tennessee Association for Alcohol, Drug and other Addiction Services through a contract with TDMHSAS.

The REDLINE is available 24 hours a day, 365 days per year. While people have been able to call the REDLINE since 1989, it has had text message capability since 2019. The REDLINE typically receives between 1,000 and 1,300 calls each month. Between July 2018 and June 2019, more than 13,000 callers used the Tennessee REDLINE's services.

Find Help Now

Find Help Now is a website that helps people locate substance use disorder treatment facilities. The website has a substance use disorder treatment opening locator that helps individuals find available treatment openings based on the type of treatment needed, payment methods and insurance, gender identity, and location. The locator operates in near real-time; facilities on the site are asked to update the availability of their services regularly so individuals can find help quickly.

Find Help Now was initially created in Kentucky. It was developed by the Kentucky Injury Prevention and Research Center for several state agencies, including the Kentucky Department for Public Health, the Kentucky Office of Drug Control Policy, and the Kentucky Department for Behavioral Health, Developmental and Intellectual Disabilities. The website expanded to Tennessee due to a Centers for Disease Control and Prevention grant awarded to the Tennessee Department of Health. TDMHSAS, the Tennessee Department of Health, Tennessee REDLINE, and Tennessee Tech University partnered to implement the website.

BESMART Program

BESMART (Buprenorphine Enhanced Medication Assisted Recovery and Treatment Program) was developed by the Division of TennCare in 2019. It is a network of providers who administer high-quality medication assisted treatment (MAT) to TennCare members with opioid use disorder.

BESMART providers can be agencies or independent licensed practitioners. To become a part of the BESMART network, a provider must be a TennCare provider with a specific BESMART contract for each of TennCare's three managed care organizations (AMERIGROUP, UnitedHealthcare, and BlueCare). The provider must also complete a BESMART attestation form.¹⁰

In addition to providing office-based medication assisted treatment, BESMART providers ensure member access to wraparound services including counseling, care coordination, pharmacy assistance, and peer recovery support to optimize an individual's road to recovery.

Substance Abuse Services – Office of Evidence and Impact Program Inventory

The Office of Evidence and Impact, which is part of the Tennessee Department of Finance and Administration, has developed a program inventory for various state agencies. Each agency's program inventory contains a list of state-funded programs and services along with whether evidence exists to support the program's desired outcomes.

The Office of Evidence and Impact has compiled a program inventory for TDMHSAS.¹¹ The inventory contains brief descriptions of 31 programs and services offered through TDMHSAS. Of these 31 programs and services, 26 (84 percent) received a rating of *promising* or *proven effective*. *Promising* means that research has demonstrated the program's effectiveness through at least one evaluation, while *proven effective* means that research has demonstrated the program's effectiveness through multiple evaluations. The five programs and services that did not receive a *promising* or *proven effective* rating were deemed *theory-based*; this designation means that the program's effectiveness has not yet been evaluated. Twelve of the programs were also associated with a decrease in substance use disorder.

Resources for recovery

While this report primarily focuses on substance use disorder *treatment* services, Tennessee has also implemented measures to help individuals in *recovery*. While these terms are sometimes used interchangeably, they have different definitions. *Treatment* services are intended to eliminate an addiction, whereas *recovery* encompasses all efforts to improve people's lives afterward.

TDMHSAS and other state agencies have implemented an array of recovery-related initiatives. The following examples are intended to provide a snapshot of these efforts and are not intended to be comprehensive.

Faith-Based Recovery Network

TDMHSAS has launched a new initiative called the Faith-Based Recovery Network. Under this initiative, faith-based organizations can apply to become a Tennessee Certified Recovery Congregation. Accepted organizations must make efforts to support individuals struggling with addiction, including initiatives like hosting recovery support groups, sharing recovery information, and providing spiritual/pastoral support.¹² As of September 2022, there are 812 Certified Recovery Congregations across the state. While TDMHSAS hosts a directory and map of these congregations on its website, the agency does not publish outcomes data for these organizations.

TN Recover app

TDMHSAS has launched a smartphone app called TN Recover. Currently, the app provides individuals with information about prevention, treatment, and recovery. The app also encourages users to live a life free of substance use disorder, with messages and text prompts meant to empower app users. While TDMHSAS does not currently use the app for data-related purposes, it hopes to eventually collect and analyze data regarding treatment and recovery outcomes through the app.

Substance use disorder treatment providers that receive TDMHSAS funding are required to offer the app to clients for download. App users cannot communicate directly with one another, and an individual must receive an invitation to use the app.

Past Tennessee efforts

State Epidemiological Outcomes Workgroup

Tennessee does not publish its own regular report on substance use disorder treatment outcomes. However, in 2015, the federal government provided states with discretionary grant funding to establish a State Epidemiological Outcomes Workgroup (SEOW). Each state that received this grant was expected to use the funds to create a workgroup that would conduct periodic assessments about the prevalence and consequences of substance use disorder.¹³

The mission of Tennessee's SEOW was "to use data to inform decisions about substance use disorder prevention, treatment, and recovery programming." The assistant commissioner for the Division of Substance Abuse Services (a division within TDMHSAS) served as the SEOW's chair.

Between 2015 and 2021, the SEOW published several dashboards on substance use disorder.¹⁴ These dashboards focused on the top substances of abuse, the number of individuals receiving treatment, and some of the services offered by TDMHSAS. The SEOW did not compare the effectiveness of treatment modalities, as this was outside the group's scope of work.

State Epidemiological Outcomes Workgroup Members

Tennessee Department of Mental Health & Substance Abuse Services
Tennessee Bureau of Investigation
Tennessee Department of Health
Tennessee Department of Safety & Homeland Security
Tennessee Department of Correction
Tennessee Department of Military
Tennessee Division of Health Care Finance & Administration
Tennessee Department of Children's Services
Tennessee Department of Education
East Tennessee State University
Oasis Center, Inc.

The SEOW's federal grant funding ended in 2021, although TDMHSAS has made efforts to keep the workgroup functioning. As of October 2022, the group remains on a hiatus due to the COVID-19 pandemic. TDMHSAS is currently evaluating whether to keep or disband the SEOW.

Prescription for Success

In 2014, TDMHSAS published a report titled *Prescription for Success*. The report outlined the state's then-current efforts to combat the prescription drug epidemic. The report provides detailed descriptions for each of the state's prevention, treatment, and recovery initiatives, but it does not provide information or statistics on the effectiveness of these initiatives.

Exhibit 8: Treatment efforts discussed in the Prescription for Success report | 2014

Treatment	
<p>Mental Health and Substance Abuse Services</p> <ul style="list-style-type: none"> • Full Continuum of treatment services provided to indigent people • Neonatal Abstinence Syndrome Funded Treatment • Recovery (Drug) Courts • Residential Recovery Court • Community Treatment Collaborative • Community Housing with Intensive Outpatient Services • Medication Assisted Therapies <p>Health</p> <ul style="list-style-type: none"> • Impaired Healthcare Professionals Program <p>Safety and Homeland Security</p> <ul style="list-style-type: none"> • Governor’s Public Safety Subcabinet Strategies 	<p>Correction</p> <ul style="list-style-type: none"> • Substance Abuse Therapeutic Community • Substance Abuse Group Therapy • Technical Violators Diversion Program Community Treatment Collaborative • Co-occurring Treatment • Residential Recovery Court <p>Children’s Services</p> <ul style="list-style-type: none"> • Treatment Services for youth and young adults in Custodial Care • Treatment for babies born addicted to substances <p>Bureau of TennCare</p> <ul style="list-style-type: none"> • Contracts with Managed Care Organizations to provide a comprehensive continuum of substance abuse services

Source: Tennessee Department of Mental Health and Substance Abuse Services, 2014.

Endnotes

- ¹ U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Block Grant Reporting Section, FY 2022-23, <https://www.samhsa.gov/sites/default/files/grants/fy22-23-sabg-report.pdf>.
- ² U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, “2020 N-SSATS State Profiles Executive Summary,” 2020, https://www.samhsa.gov/data/sites/default/files/reports/rpt35969/2020%20NSSATS%20State%20Profiles_FINAL.pdf.
- ³ In addition, TDMHSAS contracts with over 100 agencies to provide recovery support services, including wraparound services, housing, and case management.
- ⁴ J. E. Irvin et al. “Efficacy of relapse prevention: a meta-analytic review,” National Library of Medicine, 1999, <https://pubmed.ncbi.nlm.nih.gov/10450627/>.
- ⁵ Brad Lundahl and Brian Burke “The effectiveness and applicability of motivational interviewing: a practice-friendly review of four meta-analyses,” *Journal of Clinical Psychology*, 2009, https://onlinelibrary.wiley.com/doi/abs/10.1002/jclp.20638?casa_token=H-g3KLyerkMAAAAA:9e6SVYNR4luNeufWpxkFscO_jZ7LeLKGZwKB0mYGfRu4FBD_C5euQFTFecyyp7Af9qqb5hQY7pafcx.
- ⁶ Cindy Parks et al., “Medication-Assisted Treatment with Buprenorphine: Assessing the Evidence,” *Psychiatric Services*, 2014, <https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201300256>.
- ⁷ Rules of the Tennessee Department of Mental Health and Developmental Disabilities, Chapter 0940-05-42: Minimum Program Requirements for Non-Residential Opioid Treatment Program Facilities, 2012 <https://publications.tnsosfiles.com/rules/0940/0940-05/0940-05-42.20121219.pdf>.
- ⁸ Tennessee Department of Mental Health and Substance Abuse Services, Prescription for Success, 2014, https://www.tn.gov/content/dam/tn/mentalhealth/documents/Prescription_For_Success_Full_Report.pdf.
- ⁹ Joshua Curtis “Investigating Factors to Determine Completion and Premature Termination of Outpatient Substance-Abuse Therapy,” *Journal of International Social Issues*, 2013, https://www.winona.edu/socialwork/media/jjisi_curtis.pdf.
- ¹⁰ Division of TennCare, “BESMART Network Provider Requirements and Program Description,” https://bluecare.bcbst.com/forms/Providers/Buprenorphine_Medication%20Assisted_Treatment_MAT_Program_Description.pdf.
- ¹¹ For more information, see: <https://www.tn.gov/content/dam/tn/transparentn/evidence-based-budgeting/Substance%20Abuse%20Services%20-%20Program%20Inventory%20-%20Final.pdf>.
- ¹² Tennessee Department of Mental Health and Substance Abuse Services, “Become a Tennessee Certified Recovery Congregation,” not dated, <https://www.tn.gov/content/tn/behavioral-health/substance-abuse-services/faith-based-initiatives/become-certified.html>.
- ¹³ For a more detailed description of what states were expected to accomplish within their respective SEOWs, see: <https://store.samhsa.gov/sites/default/files/d7/priv/sma12-4724.pdf>.
- ¹⁴ Tennessee Department of Mental Health and Substance Abuse Services, “State Epidemiological Outcomes Workgroup,” not dated, <https://www.tn.gov/behavioral-health/research/data--research--and-planning/state-epidemiological-outcomes-workgroup1/state-epidemiological-outcomes-workgroup/county--regional-and-state-data.html>.



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